

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/539,281  
Source: PG  
Date Processed by STIC: 3/31/06

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 03/31/2006

PATENT APPLICATION: US/10/539,281

TIME: 15:48:25

Input Set : A:\273891US0XPCT.ST25.txt

Output Set: N:\CRF4\03312006\J539281.raw

```

3 <110> APPLICANT: ISOBE, KIMIYASU
4     YAMAGUCHI, SEIKI
5     KOBAYASHI, MASAYUKI
6     KUMAGAI, SHINYA
7     SARASHINA, TAKAMI
9 <120> TITLE OF INVENTION: D-AMINOACYLASE
11 <130> FILE REFERENCE: 273891US0XPCT
13 <140> CURRENT APPLICATION NUMBER: 10/539,281
14 <141> CURRENT FILING DATE: 2005-06-16
16 <150> PRIOR APPLICATION NUMBER: PCT/JP03/16182
17 <151> PRIOR FILING DATE: 2003-12-17
19 <150> PRIOR APPLICATION NUMBER: JP 2002-366389
20 <151> PRIOR FILING DATE: 2002-12-18
22 <150> PRIOR APPLICATION NUMBER: JP 2003-351560
23 <151> PRIOR FILING DATE: 2003-10-10
25 <160> NUMBER OF SEQ ID NOS: 11
27 <170> SOFTWARE: PatentIn version 3.3
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 1500
31 <212> TYPE: DNA
32 <213> ORGANISM: Defluviobacter sp. A131-3
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37 catgatgcga ttgccgatgt agcggatccc ggcggccaga tcgttgcatg cgggtccgtcg      120
39 ctaggtgccg gaaagaggga gatcgacgcg accgggctcg ttgtctcacc gggcttcatt      180
41 gacctccatg cccacgggca atccattccc gccgaccgga tgcaggcctt cgacggcgtc      240
43 accaccgcgc tggagcttga ggtgggctcg ctgccgctcg cgcgctggta cgaacagcag      300
45 caggccgggg gccgcgtgct caactacggg accgccgctg catggatctt cgcgcgcaag      360
47 gccgtgatga tcggaatgga actcgatggc cgctcgcgc cgatcgagat gatgggtgcc      420
49 ggctccgacg acatgcgctg gtcggtggac gccgcgactg cgccgcagac cgatgatatt      480
51 gtccggctga cgcgtcaggc tctcgaagaa ggcgcactcg gcacgcgcat acctcacggc      540
53 tatgccgccg gcgctggcgt caaggaaatg acgcgaatct gcgaactggc tgcagaattc      600
55 gaccggccga cctataccca cattccctac atgtccaaca ttgacccag aagctcggtc      660
57 gaggcttatg tgcaactgat cggcctggcc ggtgcaaccg gcgcacacat gcatatctgc      720
59 caccttaaca gcaccagcct gcgggacgtc gaggatgccg cgaggctgat cgccaaagca      780
61 caggcacagg gtcttccgat caccaccgag gcctatccct acggcacggg atcgaccgtg      840
63 atgagcgccc gcttcttcat tgactccgat tttgccgaac gaaccggaac gggctacgac      900
65 gccatccagg tcgtctcgag cggcaagcgc tttgagaacc gggacgaact cgtggcagcg      960
67 cgcgccgaaa ccccggaagc actggtgctg tggcattatc tcgacaccga caatccccac      1020
69 gatcagcggc tgctcgacgt ctcggtgatg tatccgggcg gcgccatcgc ctccgatgcg      1080
71 gtgccgtgga gcaatcccga cgggacgctg tacaccggcg aggaatggcc gctcccggcc      1140
73 gacaagacgt cccatccgcg ctcgccggcg acctataccc gcttcctcgc ccagtgggtg      1200
75 cgcgaaacgc aggcggtgcc actggttgaa gccatcgcca aatgcgcgct cattccagcg      1260

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77 cagatcgctcg agcgctgcag cgacgtgttc cgccgcaagg gccggcttca gcccggatgc 1320
79 gacgccgaca tcgtgatttt cgaccttgaa tccgtgcagg acaggtcaac gttcgaggac 1380
81 atgcacctcg ccgccgacgg catggtccat gtgctggtca acggcgaggc cgtgatcgcg 1440
83 aatggcgaac tcgtgcgcga cgcgcgttcc ggccgtgccca tccggagcac gccgcgatga 1500
86 <210> SEQ ID NO: 2
87 <211> LENGTH: 499
88 <212> TYPE: PRT
89 <213> ORGANISM: Defluviobacter sp.A131-3
91 <400> SEQUENCE: 2
93 Met Ala Lys Ser Phe Asp Leu Val Ile Arg Asn Gly Arg Val Val Asp
94 1 5 10 15
97 Pro Glu Thr Gly His Asp Ala Ile Ala Asp Val Ala Val Ser Gly Gly
98 20 25 30
101 Gln Ile Val Ala Val Gly Pro Ser Leu Gly Ala Gly Lys Arg Glu Ile
102 35 40 45
105 Asp Ala Thr Gly Leu Val Val Ser Pro Gly Phe Ile Asp Leu His Ala
106 50 55 60
109 His Gly Gln Ser Ile Pro Ala Asp Arg Met Gln Ala Phe Asp Gly Val
110 65 70 75 80
113 Thr Thr Ala Leu Glu Leu Glu Val Gly Ser Leu Pro Val Ala Arg Trp
114 85 90 95
117 Tyr Glu Gln Gln Gln Ala Gly Gly Arg Val Leu Asn Tyr Gly Thr Ala
118 100 105 110
121 Ala Ala Trp Ile Phe Ala Arg Lys Ala Val Met Ile Gly Met Glu Leu
122 115 120 125
125 Asp Gly Arg Leu Ala Pro Ile Glu Met Met Gly Ala Gly Ser Asp Asp
126 130 135 140
129 Met Arg Trp Ser Val Asp Ala Ala Thr Ala Pro Gln Thr Asp Asp Ile
130 145 150 155 160
133 Val Arg Leu Thr Arg Gln Ala Leu Glu Glu Gly Ala Leu Gly Ile Gly
134 165 170 175
137 Ile Pro His Gly Tyr Ala Ala Gly Ala Gly Val Lys Glu Met Thr Arg
138 180 185 190
141 Ile Cys Glu Leu Ala Ala Glu Phe Asp Arg Pro Thr Tyr Thr His Ile
142 195 200 205
145 Pro Tyr Met Ser Asn Ile Asp Pro Arg Ser Ser Val Glu Ala Tyr Val
146 210 215 220
149 Gln Leu Ile Gly Leu Ala Gly Ala Thr Gly Ala His Met His Ile Cys
150 225 230 235 240
153 His Leu Asn Ser Thr Ser Leu Arg Asp Val Glu Asp Ala Ala Arg Leu
154 245 250 255
157 Ile Ala Lys Ala Gln Ala Gln Gly Leu Pro Ile Thr Thr Glu Ala Tyr
158 260 265 270
161 Pro Tyr Gly Thr Gly Ser Thr Val Met Ser Ala Arg Phe Phe Ile Asp
162 275 280 285
165 Ser Asp Phe Ala Glu Arg Thr Gly Thr Gly Tyr Asp Ala Ile Gln Val
166 290 295 300
169 Val Ser Ser Gly Lys Arg Phe Glu Asn Arg Asp Glu Leu Val Ala Ala
170 305 310 315 320

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```

173 Arg Ala Glu Thr Pro Glu Ala Leu Val Leu Trp His Tyr Leu Asp Thr
174           325           330           335
177 Asp Asn Pro His Asp Gln Arg Leu Leu Asp Val Ser Val Met Tyr Pro
178           340           345           350
181 Gly Gly Ala Ile Ala Ser Asp Ala Val Pro Trp Ser Asn Pro Asp Gly
182           355           360           365
185 Thr Leu Tyr Thr Gly Glu Glu Trp Pro Leu Pro Ala Asp Lys Thr Ser
186           370           375           380
189 His Pro Arg Ser Ala Gly Thr Tyr Thr Arg Phe Leu Ala Gln Trp Val
190           385           390           395           400
193 Arg Glu Arg Glu Ala Val Pro Leu Val Glu Ala Ile Ala Lys Cys Ala
194           405           410           415
197 Leu Ile Pro Ala Gln Ile Val Glu Arg Cys Ser Asp Val Phe Arg Arg
198           420           425           430
201 Lys Gly Arg Leu Gln Pro Gly Cys Asp Ala Asp Ile Val Ile Phe Asp
202           435           440           445
205 Leu Glu Ser Val Gln Asp Arg Ser Thr Phe Glu Asp Met His Leu Ala
206           450           455           460
209 Ala Asp Gly Met Val His Val Leu Val Asn Gly Glu Ala Val Ile Ala
210           465           470           475           480
213 Asn Gly Glu Leu Val Arg Asp Ala Arg Ser Gly Arg Ala Ile Arg Ser
214           485           490           495

```

217 Thr Pro Arg

221 &lt;210&gt; SEQ ID NO: 3

222 &lt;211&gt; LENGTH: 20

223 &lt;212&gt; TYPE: DNA

224 &lt;213&gt; ORGANISM: Artificial Sequence

226 &lt;220&gt; FEATURE:

227 &lt;223&gt; OTHER INFORMATION: Synthetic DNA

230 &lt;220&gt; FEATURE:

231 &lt;221&gt; NAME/KEY: misc\_feature

232 &lt;222&gt; LOCATION: (6)..(6)

233 &lt;223&gt; OTHER INFORMATION: n = inosine

235 &lt;220&gt; FEATURE:

236 &lt;221&gt; NAME/KEY: misc\_feature

237 &lt;222&gt; LOCATION: (12)..(12)

238 &lt;223&gt; OTHER INFORMATION: n = inosine

240 &lt;220&gt; FEATURE:

241 &lt;221&gt; NAME/KEY: misc\_feature

242 &lt;222&gt; LOCATION: (15)..(15)

243 &lt;223&gt; OTHER INFORMATION: n = inosine

245 &lt;220&gt; FEATURE:

246 &lt;221&gt; NAME/KEY: misc\_feature

247 &lt;222&gt; LOCATION: (18)..(18)

248 &lt;223&gt; OTHER INFORMATION: n = inosine

250 &lt;400&gt; SEQUENCE: 3

W--&gt; 251 athmgnaayg gnmngtngt

20

254 &lt;210&gt; SEQ ID NO: 4

255 &lt;211&gt; LENGTH: 23

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Input Set : A:\273891US0XPCT.ST25.txt

Output Set: N:\CRF4\03312006\J539281.raw

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256 <212> TYPE: DNA
257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: Synthetic DNA
263 <220> FEATURE:
264 <221> NAME/KEY: misc_feature
265 <222> LOCATION: (6)..(6)
266 <223> OTHER INFORMATION: n = inosine
268 <220> FEATURE:
269 <221> NAME/KEY: misc_feature
270 <222> LOCATION: (15)..(15)
271 <223> OTHER INFORMATION: n = inosine
273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (18)..(18)
276 <223> OTHER INFORMATION: n = inosine
278 <400> SEQUENCE: 4
W--> 279 ckytcnacda tytgngcngg dat 23
282 <210> SEQ ID NO: 5
283 <211> LENGTH: 24
284 <212> TYPE: DNA
285 <213> ORGANISM: Artificial Sequence
287 <220> FEATURE:
288 <223> OTHER INFORMATION: Synthetic DNA
290 <400> SEQUENCE: 5
291 ataccgctac atcggaatc gcat 24
294 <210> SEQ ID NO: 6
295 <211> LENGTH: 24
296 <212> TYPE: DNA
297 <213> ORGANISM: Artificial Sequence
299 <220> FEATURE:
300 <223> OTHER INFORMATION: Synthetic DNA
302 <400> SEQUENCE: 6
303 tgccactggt tgaagccatc gcca 24
306 <210> SEQ ID NO: 7
307 <211> LENGTH: 21
308 <212> TYPE: DNA
309 <213> ORGANISM: Artificial Sequence
311 <220> FEATURE:
312 <223> OTHER INFORMATION: Synthetic DNA
314 <400> SEQUENCE: 7
315 atggccaaaa gcttcgatct c 21
318 <210> SEQ ID NO: 8
319 <211> LENGTH: 22
320 <212> TYPE: DNA
321 <213> ORGANISM: Artificial Sequence
323 <220> FEATURE:
324 <223> OTHER INFORMATION: Synthetic DNA
326 <400> SEQUENCE: 8

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## RAW SEQUENCE LISTING

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Input Set : A:\273891US0XPCT.ST25.txt

Output Set: N:\CRF4\03312006\J539281.raw

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327 tcatcgcggc gtgctccgga tg
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331 <211> LENGTH: 15
332 <212> TYPE: PRT
333 <213> ORGANISM: Artificial Sequence
335 <220> FEATURE:
336 <223> OTHER INFORMATION: Synthetic Peptide
338 <400> SEQUENCE: 9
340 Lys Ser Phe Asp Leu Val Ile Arg Asn Gly Arg Val Val Asp Pro
341 1          5          10          15
344 <210> SEQ ID NO: 10
345 <211> LENGTH: 12
346 <212> TYPE: PRT
347 <213> ORGANISM: Artificial Sequence
349 <220> FEATURE:
350 <223> OTHER INFORMATION: Synthetic Peptide
353 <220> FEATURE:
354 <221> NAME/KEY: misc_feature
355 <222> LOCATION: (7)..(7)
356 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
358 <220> FEATURE:
359 <221> NAME/KEY: misc_feature
360 <222> LOCATION: (10)..(10)
361 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
363 <400> SEQUENCE: 10
W--> 365 Ala Gln Ala Gln Gly Leu Xaa Ile Thr Xaa Glu Ala
366 1          5          10
369 <210> SEQ ID NO: 11
370 <211> LENGTH: 11
371 <212> TYPE: PRT
372 <213> ORGANISM: Artificial Sequence
374 <220> FEATURE:
375 <223> OTHER INFORMATION: Synthetic Peptide
377 <400> SEQUENCE: 11
379 Thr Ala Leu Ile Pro Ala Gln Ile Val Glu Arg
380 1          5          10

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## RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 03/31/2006

PATENT APPLICATION: US/10/539,281

TIME: 15:48:26

Input Set : A:\273891US0XPCT.ST25.txt

Output Set: N:\CRF4\03312006\J539281.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 6, 12, 15, 18

Seq#:4; N Pos. 6, 15, 18

Seq#:10; Xaa Pos. 7, 10

**VERIFICATION SUMMARY**

DATE: 03/31/2006

PATENT APPLICATION: US/10/539,281

TIME: 15:48:26

Input Set : A:\273891US0XPCT.ST25.txt

Output Set: N:\CRF4\03312006\J539281.raw

L:251 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:279 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0